

WHAT IS CLAIMED IS:

1. An isolated polynucleotide selected from the group consisting of:
 - (a) a polynucleotide encoding a polypeptide having the deduced amino acid sequence of SEQ ID No. 2 and fragments, analogs or derivatives of said polypeptide; and
 - (b) a polynucleotide encoding a polypeptide having the amino acid sequence encoded by the cDNA contained in ATCC Deposit No. 75980 and fragments, analogs or derivatives of said polypeptide.
2. The polynucleotide of Claim 1 wherein the polynucleotide is DNA.
3. The polynucleotide of Claim 2 wherein said polynucleotide encodes a polypeptide having the deduced amino acid sequence of SEQ ID No. 2.
4. The polynucleotide of Claim 2 comprising the nucleotide sequence from nucleotide 1 to nucleotide 2885 of SEQ ID No. 1.
5. A vector containing the DNA of Claim 2.
6. A host cell genetically engineered with the vector of Claim 5.
7. A process for producing a polypeptide comprising: expressing from the host cell of Claim 6 the polypeptide encoded by said DNA.
8. A process for producing cells capable of expressing a polypeptide comprising genetically engineering cells with the vector of Claim 5.
9. A polypeptide selected from the group consisting of (i) a polypeptide having the deduced amino acid sequence of SEQ ID No. 2 and fragments, analogs or derivatives thereof and (ii) a polypeptide encoded by the cDNA of ATCC Deposit No. 75980 and fragments, analogs or derivatives of said polypeptide.
10. An antibody against the polypeptide of claim 9.

11. A compound effective as an agonist to the polypeptide of claim 9.

12. A compound effective as an antagonist against the polypeptide of claim 9.

13. A method for the treatment of a patient having need of human amine transporter activity comprising: administering to the patient a therapeutically effective amount of the compound of claim 11.

14. A method for the treatment of a patient having need of human amine transporter activity comprising: administering to the patient a therapeutically effective amount of the polypeptide of claim 9, wherein said therapeutically effective amount of the polypeptide is administered by providing to the patient DNA encoding said polypeptide and expressing said polypeptide *in vivo*.

15. A method for the treatment of a patient having need to inhibit human amine transporter activity comprising: administering to the patient a therapeutically effective amount of the compound of Claim 12.

16. A soluble fragment of the polypeptide of Claim 9 wherein the polypeptide binds a ligand for the receptor.

17. A process for identifying compounds effective as antagonists or agonists to the a polypeptide of claim 9 comprising:

expressing the polypeptide on the surface of a cell;

contacting the cell with a ligand known to be transported by the polypeptide and a compound to be screened;

determining the extent of ligand transported by the polypeptide; and

identifying if the compound to be screened is an agonist or antagonist.

18. A process for determining whether a ligand not known to be capable of binding to the polypeptide of claim 9 can bind thereto comprising:

contacting a mammalian cell which expresses the human amine transporter with a potential ligand;

detecting the presence of the ligand which binds to the transporter; and

determining whether the ligand binds to the transporter.

19. A method for diagnosing a disease or a susceptibility to a disease related to under-expression of the polypeptide of claim 9 comprising:

detecting mutations in the nucleic acid sequence encoding the polypeptide of claim 14 in a sample derived from a host.

20. A diagnostic process comprising:

analyzing for the presence of the polypeptide of claim 22 in a sample derived from a host.